

TABLE OF CONTENTS

LIST OF FIGURES	vii
LIST OF TABLES	vii
ACRONYMS	ix
1. INTRODUCTION.....	1-1
1.1 PURPOSE AND NEED FOR AGENCY ACTION	1-1
1.2 SCOPE OF THIS ENVIRONMENTAL ASSESSMENT	1-1
2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES	2-1
2.1 BACKGROUND	2-1
2.2 NO ACTION ALTERNATIVE	2-9
2.3 PROPOSED ACTION	2-9
2.3.1 Interim Centralized Storage at a Single DOE Site.....	2-10
2.3.2 Interim Centralized Storage at a Single Commercial Site	2-10
2.3.3 Interim Partially Consolidated Storage at Several DOE Sites.....	2-10
2.3.4 Interim Partially Consolidated Storage at One Western and One Eastern DOE Site	2-10
2.3.5 Interim Partially Consolidated Storage at One Western and One Eastern Commercial Site.....	2-11
2.3.6 Interim Partially Consolidated Storage by Physical Form	2-11
2.3.7 Transfer of Small Quantities.....	2-11
2.3.8 Disposition Options.....	2-11
2.4 ALTERNATIVES CONSIDERED BUT NOT PROPOSED FOR ANALYSIS	2-12
3. AFFECTED ENVIRONMENT	3-1
3.1 PORTSMOUTH GASEOUS DIFFUSION PLANT	3-1
3.1.1 Human Health.....	3-1
3.1.2 Climate and Air Quality	3-1
3.1.3 Water Resources	3-1
3.1.4 Geology and Soils	3-1
3.1.5 Ecological Resources.....	3-2
3.1.6 Socioeconomics and Environmental Justice.....	3-2
3.1.7 Land Use.....	3-2
3.1.8 Infrastructure	3-2
3.1.9 Cultural Resources.....	3-3
3.2 PADUCAH GASEOUS DIFFUSION PLANT	3-3
3.2.1 Human Health.....	3-3
3.2.2 Climate and Air Quality	3-3
3.2.3 Water Resources	3-3
3.2.4 Geology and Soils	3-4
3.2.5 Ecological Resources.....	3-4
3.2.6 Socioeconomics and Environmental Justice.....	3-4
3.2.7 Land Use.....	3-4
3.2.8 Infrastructure	3-5
3.2.9 Cultural Resources.....	3-5
3.3 Y-12 National security complex	3-5
3.3.1 Human Health.....	3-5

3.3.2	Climate and Air Quality	3-5
3.3.3	Water Resources	3-6
3.3.4	Geology and Soils	3-6
3.3.5	Ecological Resources.....	3-6
3.3.6	Socioeconomics and Environmental Justice.....	3-7
3.3.7	Land Use.....	3-7
3.3.8	Infrastructure	3-7
3.3.9	Cultural Resources.....	3-8
3.4	EAST TENNESSEE TECHNOLOGY PARK	3-8
3.4.1	Human Health.....	3-8
3.4.2	Climate and Air Quality	3-8
3.4.3	Water Resources	3-9
3.4.4	Geology and Soils	3-9
3.4.5	Ecological Resources.....	3-9
3.4.6	Socioeconomics and Environmental Justice.....	3-10
3.4.7	Land Use.....	3-10
3.4.8	Infrastructure	3-10
3.4.9	Cultural Resources.....	3-10
3.5	SAVANNAH RIVER SITE.....	3-10
3.5.1	Human Health.....	3-11
3.5.2	Climate and Air Quality	3-11
3.5.3	Water Resources	3-11
3.5.4	Geology and Soils	3-12
3.5.5	Ecological Resources.....	3-12
3.5.6	Socioeconomics and Environmental Justice.....	3-12
3.5.7	Land Use.....	3-13
3.5.8	Infrastructure	3-13
3.5.9	Cultural Resources.....	3-13
3.6	IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY	3-14
3.6.1	Human Health.....	3-14
3.6.2	Climate and Air Quality	3-14
3.6.3	Water Resources	3-14
3.6.4	Geology and Soils	3-15
3.6.5	Ecological Resources.....	3-15
3.6.6	Socioeconomics and Environmental Justice.....	3-15
3.6.7	Land Use.....	3-16
3.6.8	Infrastructure	3-16
3.6.9	Cultural Resources.....	3-16
4.	ENVIRONMENTAL CONSEQUENCES.....	4-1
4.1	METHODS	4-1
4.2	CONSEQUENCES COMMON TO ALL ALTERNATIVES.....	4-3
4.3	NO ACTION ALTERNATIVE	4-4
4.3.1	Normal Operations	4-4
4.3.2	Facility Accidents.....	4-4
4.3.3	Transportation	4-4
4.4	INTERIM CENTRALIZED STORAGE AT A SINGLE DOE SITE	4-4
4.4.1	Normal Operations	4-5
4.4.2	Facility Accidents.....	4-7
4.4.3	Transportation	4-7
4.5	INTERIM CENTRALIZED STORAGE AT A SINGLE COMMERCIAL SITE	4-8

4.5.1	Normal Operations	4-8
4.5.2	Facility Accidents	4-8
4.5.3	Transportation	4-8
4.6	INTERIM PARTIALLY CONSOLIDATED STORAGE AT SEVERAL DOE SITES	4-9
4.6.1	Normal Operations	4-9
4.6.2	Facility Accidents	4-10
4.6.3	Transportation	4-11
4.7	INTERIM PARTIALLY CONSOLIDATED STORAGE AT TWO DOE SITES	4-11
4.7.1	Normal Operations	4-11
4.7.2	Facility Accidents	4-12
4.7.3	Transportation	4-13
4.8	INTERIM PARTIALLY CONSOLIDATED STORAGE AT TWO COMMERCIAL SITES	4-13
4.8.1	Normal Operations	4-13
4.8.2	Facility Accidents	4-14
4.8.3	Transportation	4-14
4.9	INTERIM PARTIALLY CONSOLIDATED STORAGE BASED ON PHYSICAL FORM	4-14
4.9.1	Normal Operations	4-15
4.9.2	Facility Accidents	4-16
4.9.3	Transportation	4-16
4.10	DISPOSITION	4-17
4.10.1	Commercial Processing and Domestic Sales	4-17
4.10.2	Transfer to Research Facility	4-18
4.10.3	Transfer to Other Government Agency	4-18
4.10.4	Foreign Sales	4-18
4.11	SUMMARY AND CONCLUSIONS	4-19
4.11.1	Comparison of Alternatives	4-19
4.12	CUMULATIVE IMPACTS	4-21
4.12.1	SRS	4-21
4.12.2	PGDP	4-21
4.12.3	PORTS	4-22
4.12.4	INEEL	4-22
4.12.5	Oak Ridge	4-22
5.	REFERENCES	5-1
6.	LIST OF PREPARERS	6-1
7.	LIST OF AGENCIES/INDIVIDUALS CONSULTED	7-1
APPENDIX A. HAZARD AND ACCIDENT ANALYSIS FOR URANIUM MANAGEMENT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT		A-1
APPENDIX B. TRANSPORTATION ANALYSIS FOR URANIUM MANAGEMENT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT		B-1
APPENDIX C. ANALYSIS OF CHRONIC RISK TO HUMANS AND ECOLOGICAL RECEPTORS FROM URANIUM DEPOSITED ON SOIL AND SURFACE WATER FOR URANIUM MANAGEMENT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT		C-1

APPENDIX D. COMMENTS AND RESPONSE TO COMMENTS.....D-1

LIST OF FIGURES

2.1	Example of the 55-gallon drums and metal storage containers used at PORTS.....	2-8
-----	--	-----

LIST OF TABLES

2.1	Uranium management inventory.....	2-2
2.2	Uranium management PEA interim storage alternatives.....	2-4
2.3	Packaging assumptions for uranium management PEA.....	2-6
2.4	Container assumptions for uranium management PEA.....	2-6
2.5	Transportation assumptions for uranium management PEA.....	2-6
2.6	Uranium management PEA interim storage requirements.....	2-7
2.7	Uranium management PEA disposition options.....	2-7
3.1	Population, income, and employment in the PORTS region of influence for Pike County and Scioto County.....	3-2
3.2	Population and income in the Y-12 National Security Complex Region of Influence for Roane and Anderson Counties for 1999.....	3-7
3.3	Population and income in the Savannah River site region of influence for 1999.....	3-13
3.4	Population and income in the INEEL site region of influence for 1999.....	3-15
4.1	Risks due to accidents for No Action alternative.....	4-5
4.2	Storage requirements for interim centralized storage at a single DOE site.....	4-5
4.3	Impacts for interim centralized storage at a single DOE site.....	4-6
4.4	Risks due to accidents for interim centralized storage at a single DOE site.....	4-7
4.5	Transportation effects for interim centralized storage at a single DOE site.....	4-7
4.6	Impacts for interim centralized storage at a single commercial site.....	4-8
4.7	Transportation effects for interim centralized storage at a commercial site.....	4-9
4.8	Storage requirements for interim partially consolidated storage at several DOE sites.....	4-9
4.9	Impacts for interim partially consolidated storage at several DOE sites.....	4-10
4.10	Risks due to accidents for interim partially consolidated storage at several DOE sites.....	4-11
4.11	Transportation effects for interim partially consolidated storage at several DOE sites.....	4-11
4.12	Storage requirements for interim partially consolidated storage at two DOE sites.....	4-12
4.13	Impacts for interim partially consolidated storage at two DOE sites.....	4-12
4.14	Risks due to accidents for interim partially consolidated storage at two DOE sites.....	4-13
4.15	Transportation effects for interim partially consolidated storage at two DOE sites.....	4-13
4.16	Impacts for interim partially consolidated storage at two commercial sites.....	4-14
4.17	Transportation effects for interim partially consolidated storage at two commercial sites.....	4-14
4.18	Storage requirements for interim partially consolidated storage based on physical form.....	4-15
4.19	Impacts for interim partially consolidated storage based on physical form.....	4-16
4.20	Risks due to accidents for interim partially consolidated storage based on physical form.....	4-16
4.21	Transportation effects for interim partially consolidated storage based on physical form.....	4-17

